

AMENDMENTS TO THE CLAIMS

1-10. (Canceled)

11. (Currently Amended) A buzzer driving circuit for minimizing noise in a communication device, the buzzer driving circuit comprising:
a buzzer coupled to a voltage source;
a plurality of impedance components coupled in series to the buzzer;
wherein the plurality of impedance components comprises at least one resistor and at least one capacitor coupled in series;
wherein a value of the at least one resistor is selected so as to minimize noise generated by the buzzer; and
wherein the buzzer noise is minimized via a generated acoustic output which is opposite in polarity and equal in magnitude to the buzzer noise.

12. (Canceled)

13. (Previously Presented) The buzzer driving circuit of claim 11, wherein a resistance of the buzzer (R_{buzzer}) is less than a resistance of the at least one resistor (R_{650}).

14. (Previously Presented) The buzzer driving circuit of claim 13, wherein R_{buzzer} is negligible relative to R_{650} .

15. (Previously Presented) The buzzer driving circuit of claim 14, wherein a current flowing through the buzzer (I_{buzzer}) is approximately equal to a voltage across the voltage source (V_{batdrop}) divided by the resistance of the at least one resistor (R_{650}).

16. (Previously Presented) The buzzer driving circuit of claim 15, wherein V_{batdrop} is equal to a non-constant loop current (I_{loop}) times an internal resistance of the voltage source (R_{int}).

17. (Previously Presented) The buzzer driving circuit of claim 16, wherein:
 R_{650} is equal to R_{int} multiplied by a ratio of K_1 to K_2 ;
 K_1 is a constant determined by characteristics of the buzzer; and
 K_2 is a constant determined by coupling between the buzzer and a circuit board of the communication device.

18. (Currently Amended) A method of reducing noise in a communication device, the method comprising the steps of:
coupling a buzzer to a voltage source;
coupling a plurality of impedance components in series to the buzzer;
wherein the plurality of impedance components comprises at least one resistor and at least one capacitor coupled in series; and
selecting a value of the at least one resistor so as to minimize noise generated by the buzzer; and-
minimizing the buzzer noise via an acoustic output which is opposite in polarity and equal in magnitude to the buzzer noise.

19. (Canceled)

20. (Previously Presented) The method of claim 18, wherein a resistance of the buzzer (R_{buzzer}) is less than a resistance of the at least one resistor (R_{650}).

21. (Previously Presented) The method of claim 20, wherein R_{buzzer} is negligible relative to R_{650} .

22. (Previously Presented) The method of claim 21, wherein a current flowing through the buzzer (I_{buzzer}) is approximately equal to a voltage across the voltage source (V_{batdrop}) divided by the resistance of the at least one resistor (R_{650}).

23. (Previously Presented) The method of claim 22, wherein V_{batdrop} is equal to a non-constant loop current (I_{loop}) times an internal resistance of the voltage source (R_{int}).

24. (Previously Presented) The method of claim 23, wherein:
 R_{650} is equal to R_{int} multiplied by a ratio of K_1 to K_2 ;
 K_1 is a constant determined by characteristics of the buzzer; and
 K_2 is a constant determined by coupling between the buzzer and a circuit board of the communication device.

25. (Previously Presented) A method of reducing noise in a communication device, the method comprising:
determining, via a radio-frequency (RF) power-management application specific integrated circuit (ASIC), of an amount of current driven from a battery through a power amplifier of the communication device;
generating, based on the determined amount of current, of an acoustic output using an algorithm of the RF power-management ASIC;
wherein the generated acoustic output is opposite in polarity and equal in magnitude to buzzer noise generated in the communication device due to a non-constant current;
and
canceling the noise via the generated acoustic output.